

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A rotary concrete mixing drum comprising:
a first helical wall element having a first ramp formation and a second helical wall element having a second ramp formation, the second helical wall element joined to the first helical wall element along a helical seam with the first and second ramp formations disposed adjacent to the seam, the first helical wall element and the second helical wall element forming a substantially continuous common wall having an interior surface circumferentially extending about a longitudinal axis to form an interior of the drum;
the interior surface at least partially provided by a polymer infused with a slip agent;
wherein the polymer includes polyurethane, and the slip agent is a polytetrafluorethylene powder configured to be held firmly in place so as not to substantially migrate within the polymer and having a weight percentage of at least 2% and no greater than 5% of the infused polymer along the surface, or a polyalpha olefin fluid having a branched structure configured so as not to significantly migrate within the polymer and having a weight percentage of at least 2% and no greater than 5% of the infused polymer along the surface.
2. (Canceled).
3. (Original) The drum of claim 1 wherein the slip agent has a surface energy less than the surface tension of a Portland Cement low slump concrete.
4. (Original) The drum of claim 1 wherein the slip agent has a surface energy of less about 20 dynes per centimeter.
- 5-16. (Canceled).

17. (Currently Amended) The drum of claim 1 including: an inner layer ~~including~~ comprising the infused polymer along the inner surface; and an outer layer providing an exterior surface of the drum.

18. (Original) The drum of claim 17 wherein the outer layer is non-metallic.

19. (Original) The drum of claim 18 wherein the outer layer includes fiberglass.

20. (Currently Amended) The drum of claim 19 wherein the ~~outer layer includes:~~ fiberglass ~~windings about the inner layer;~~ comprises a first layer of chopper fiberglass ~~over the windings,~~ the first layer having a ground surface with pores; and a second layer of chopper fiberglass over the first layer and across the pores.

21. (Currently Amended) The drum of claim 20 wherein the first layer has a first thickness and wherein the second layer has a second ~~lesser~~ thickness, the second thickness being less than the first thickness.

22. (Currently Amended) The drum of claim ~~[[20]]~~ 21 wherein the first ~~layer has a~~ thickness ~~[[of]]~~ is about 0.25 inch and wherein the second ~~layer has a~~ thickness ~~[[of]]~~ is about 0.05 inch.

23. (Currently Amended) The drum of claim ~~[[20]]~~ 21 wherein the second layer has a thickness of about 0.1 inch.

24. (Original) The drum of claim 20 wherein the ground surface has a smoothness from being ground by a 16 grit abrasive.

25. (Currently Amended) The drum of claim 17 wherein the outer layer ~~includes:~~ comprises fiberglass windings, ~~and about the inner layers;~~ a sacrificial layer over the fiberglass windings, wherein the sacrificial layer has a surface having pores~~[[;]]~~, and a top layer over the sacrificial layer and across the pores.

26. (Original) The drum of claim 17 wherein the outer layer is metallic.
27. (Original) The drum of claim 1 wherein the impregnated polymer has a tensile strength of at least 15 MPa.
28. (Original) The drum of claim 1 wherein the impregnated polymer has a Modulus 300% of at least 12 MPa.
29. (Original) The drum of claim 1 wherein the impregnated polymer has a tear strength of at least 68 kN/m.
30. (Currently Amended) The drum of claim 1 ~~including~~ further comprising inwardly extending projections configured to move material as the drum is rotated, wherein the projections partially provide the interior surface of the drum.
31. (Previously Presented) The drum of claim 30, wherein the projections have an exterior surface including the infused polymer.
32. (Previously Presented) The drum of claim 31, wherein at least a portion of one of the projections has a thickness completely formed from the infused polymer.
- 33-58. (Canceled).